

REMARKS

Claims 1-6 and 8-18 are pending. Claim 7 has been cancelled. Claims 1, 2, 6, 11, 13-18 have been amended as discussed below. Claims 19-27 are new.

Rejections Under U.S.C. § 112

Claims 2, 11 and 18 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims have been amended accordingly. Applicant has also noted typographical errors in the claim dependencies recited in claims 13-16 and has made appropriate corrections. All such amendments have been made for reasons unrelated to patentability over the prior art of record.

Rejections Under U.S.C. § 102

Claims 1, 3, 5, 6, 8-10, 12-15, 17-19 and 2, 11 and 18 were rejected under 35 U.S.C. § 102(a) as being anticipated by Medendorp et al. (U.S. Patent No. 5,764,734).

The invention as set forth in amended claim 1 includes a method for controlling power consumption in a communication device, the method including powering down at least a portion of a receiver of the communication device for a selected period of time *in response to an indication from a data source that a data transmission has ended*; and powering up the at least a portion of a receiver to check for incoming data when the selected period of time expires.

Medendorp, the primary reference cited by the Office, fails to teach one or more elements of the invention, as claimed. For example, Medendorp fails to teach or suggest *powering down at least a portion of a receiver of the communication device for a selected period of time in response to an indication from a data source that a data transmission has ended*.

As the Examiner correctly notes about the Medendorp reference, “the controller powers down the transceiver *after a period of time in which it decides there was no alert frame received*.” (Office Action at page 4, paragraph 3). Indeed, according to Medendorp, the transceivers “*only need to be on when waiting for a call during their*

CAU's alert phase." Col. 5, lines 18-20. This is completely at odds with the claimed invention which calls for *powering down at least a portion of a receiver of the communication device for a selected period of time in response to an indication from a data source that a data transmission has ended*. See also Fig. 8. Nothing in Medendorp or any other reference of record makes up for this shortcoming. Respectfully, for the foregoing reasons, the rejection of claims 1-2 and 5, under 35 U.S.C. § 102(a) as being anticipated by Medendorp et al., as well as the claims dependent therefrom, should be withdrawn and the claims indicated as allowable.

Independent claim 6, as amended, calls for a communication device, including a transmitter that transmits data, a receiver that receives data over a communications link, a signal processing circuit coupled to the transmitter and receiver, to prepare data for transmission and to process data received by the receiver; and a control circuit, responsive to the signal processor, that selectively powers at least a portion of the receiver down for a period of time and that powers up the at least a portion of a receiver to check for incoming data when the selected period of time expires, *wherein the control circuit includes a counter that is substantially synchronized with a counter at the source of the incoming data in response to an indication from the data source that a data transmission has ended*. Mendendorp completely fails to teach or suggest a counter that is substantially synchronized with a counter at the source of the incoming data in response to an indication from the data source that a data transmission has ended. As is discussed below, no other reference of record makes up for this shortcoming in Mendendorp. Respectfully, for the foregoing reasons, claim 6 is believed to be allowable and allowance of the same and all claims depending therefrom, is earnestly solicited.

Independent claim 12, as amended, calls for a communication network, including a head end communication device at least one remote communication device that is communicatively coupled to the head end communication device; and wherein each of the at least one remote communication device includes a control circuit that powers down a receiver of the at least one remote communication device for a selected period of time and that powers up the receiver of the at least one remote communication device to check for incoming data from the head end communication device when the selected period of

time expires, *wherein the control circuit includes a counter that is substantially synchronized with a counter at the source of the incoming data in response to an indication from the data source that a data transmission has ended.* Again, Mendendorp completely fails to teach or suggest a counter that is substantially synchronized with a counter at the source of the incoming data in response to an indication from the data source that a data transmission has ended. As is discussed below, no other reference of record makes up for this shortcoming in Mendendorp. Respectfully, for the foregoing reasons, claim 12 is also believed to be allowable and allowance of the same together with the claims dependent therefrom, is earnestly solicited.

The dependent claims are also allowable for reasons of their own. For example, regarding claim 2, there is no teaching or suggestion anywhere in Medendorp concerning the claimed *reception of one or more data packets and powering down the receiver for a period of time sufficient to allow detection of an attempted retransmission of a data packet.* In particular, there is nothing in the passage cited by the Office (Fig. 8, and Col. 5, lines 23-37) concerning *data packets* or *retransmission of a data packet.* For this additional reason the rejection of claim 2 should be withdrawn and claim 2 indicated as allowable. Respectfully, if the Office continues to maintain this rejection, Applicant respectfully requests that the Office specifically point out where each and every limitation is taught in Medendorp et al. in order to provide Applicants a full and fair opportunity to respond to thereto.

Rejections Under U.S.C. § 103

Claims 4, 7 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Medendorp in view of Tiedemann et al. (U.S. Patent No. 5,392,287).

The Office acknowledges that Medendorp fails to teach or suggest synchronizing the counter with a counter disposed at the source of the incoming data. The Office however cites Tiedemann, col. 4 lines 17-33. Tiedemann fails to teach or suggest synchronizing the counter with a counter disposed at the source of the incoming data in response to an indication from the data source that a data transmission has ended.

Respectfully, the Office has failed to provide a *prima facie* case of obviousness.

First, nothing in Tiedemann or any other reference of record makes up for the deficiencies of Medendorp. Tiedemann discusses a system where a synchronization is maintained by *a pilot signal transmitted on a separate pilot channel*. According to Tiedemann, a receiver may realign its timing *by synchronizing to the pilot signal*. Col. 2 line 33-40; col. 6, lines 17-23 and col. 6, lines 62-68. There is no teaching or suggestion in Tiedemann or any other reference of record *of synchronizing the counter with a counter disposed at the source of the incoming data in response to an indication from the data source that a data transmission has ended*.

Second, there is no legally sufficient motivation to combine the references. In support of the argument that the references may be combined, the Office has provided only a general statement to the effect that synchronization alleviates timing problems between receivers and transmitters (Office action at page 8, paragraph 4). As noted, mere synchronization between receivers and transmitters is not what is called for by the claimed invention. Obviousness with respect to the claimed invention *as a whole* must be shown and the teaching or suggestion to make the claimed combination must be found in the prior art, and not based on reading of applicant's disclosure, MPEP §§ 2141, 2142. The general statement provided by the Office is legally insufficient and points up another difficulty in combining the references: there is simply no need in Medendorp for the synchronization discussed in Tiedemann. The Office bears the initial burden of showing the *desirability* for the combination not mere feasibility. This burden has not been met. Thus, for the foregoing additional reasons, respectfully, the rejections of claims 4, 7 and 16 should be withdrawn and the claims allowed.

The Office additionally has rejected claim 16 based on the assertion that certain limitations therein are "well known in the art." If the Office continues to maintain this rejection, Applicant respectfully requests that the Office provide a prior art reference in support of its conclusion of obviousness. Alternatively, the claim should be allowed.

New Claims

New claims 19-27 have been added to more particularly set forth certain features and advantages of the invention of this application. The new claims recite subject matter not taught or suggested by the prior art of record. For example, claim 19 recites a method of power management for a communication system that includes at least one head end communication device and at least one remote communication device, including setting a counter at a remote unit to a predetermined power down period, and, if an incoming transmission is received, resetting the counter in response to an indication from the head end communication device that the transmission has ended. Other patentable features over the prior art of record are also present in the new claims as will be readily apparent from a careful reading thereof.

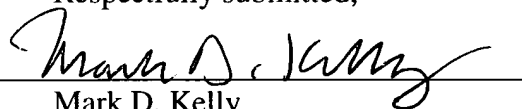
CONCLUSION

In view of the above remarks, Applicant respectfully submits that all claims are in condition for allowance and requests reconsideration of the application and allowance of the claims.

The Examiner is invited to contact Applicant's attorney at direct dial (612) 312-2209 if there are any questions regarding this Response or if prosecution of this application may be assisted thereby.

Respectfully submitted,

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Mark D. Kelly
Reg. No. 39,467

Attorneys for Applicant
Fogg Slifer Polglaze Leffert & Jay, P.A.
P.O. Box 581009
Minneapolis, MN 55458-1009
telephone: (612) 312-2200
facsimile: (612) 312-2250

MARKED-UP VERSION

1. **(Once Amended)** A method for controlling power consumption in a communication device, the method comprising:

powering down at least a portion of a receiver of the communication device for a selected period of time in response to an indication from a data source that a data transmission has ended; and

[when the selected period of time expires,] powering up the at least a portion of a receiver to check for incoming data[.] when the selected period of time expires.

2. **(Once Amended)** The method of claim 1, further comprising receiving one or more packets, and wherein [powering down the at least a portion of a receiver for a selected period of time comprises] powering [down] up the at least a portion of a

[the] receiver [for a period of] comprises powering up in time [sufficient] to allow detection of an attempted retransmission of a packet.

6. **(Once Amended)** A communication device, comprising:

- a transmitter that transmits data;
- a receiver that receives data over a communications link;
- a signal processing circuit, coupled to the transmitter and receiver, to prepare data for transmission and to process data received by the receiver; and
- a control circuit, responsive to the signal processor, that selectively powers at least a portion of the receiver down for a period of time and that powers up the at least a portion of a receiver to check for incoming data when the selected period of time expires[.], wherein the control circuit includes a counter that is substantially synchronized with a counter at the source of the incoming data in response to an indication from the data source that a data transmission has ended.

11. **(Once Amended)** The communication device of claim 6, further comprising receiving one or more packets, and wherein the control circuit powers [down] up the at least a portion of a receiver [for a period of] in time [sufficient] to allow detection of an attempted retransmission of a packet.

12. **(Once Amended)** A communication network, comprising:
a head end communication device;
at least one remote communication device that is communicatively coupled to the head end communication device; and
wherein each of the at least one remote communication device includes a control circuit that powers down a receiver of the at least one remote communication device for a selected period of time and that powers up the receiver of the at least one remote communication device to check for incoming data from the head end communication device when the selected period of time expires[.], wherein the control circuit includes a counter that is substantially synchronized with a counter at the source of the incoming data in response to an indication from the head end communication device that a data transmission has ended.

13. **(Once Amended)** The communication network of claim [11] 12, wherein each of the at least one remote communication device is powered over the connection between the head end communication device and the at least one remote communication device.

14. **(Once Amended)** The communication network of claim [11] 12, wherein each of the at least one remote communication device comprises a cable modem.

15. **(Once Amended)** The communication network of claim [11] 12, wherein each of the remote communication device is communicatively coupled to the head end communication device over a communication network.

16. **(Once Amended)** The communication network of claim [11] 12, wherein the head end communication device transmits data with a protocol that allows for retransmission of data that is not acknowledged by the at least one remote communication device.

17. **(Once Amended)** A power control circuit for a communication device, the power control circuit comprising:

a counter that establishes a selected time period for powering down a receiver of the communication device; and

a processor, coupled to the counter, that is programmed to control the reset of the counter, to power down the receiver, and to power up the receiver to check for

incoming data packets transmitted by another communication device when the counter indicates that the selected time period has expired.

18. **(Once Amended)** The power control circuit of claim 17, wherein the counter establishes a time period that is sufficient to allow detection of a data packet that is retransmitted by the [another] other communication device when no acknowledgment signal is received by the other communication device.